

AMENDMENTS**IN THE CLAIMS:**

Please amend claims 1-2 and 8-13, cancel claims 3-7 and 19-21, and add new claims 22-24 as follows below:

1. (Currently amended) A method for partial coalescing transmit buffers comprising:

obtaining a data packet from host software, wherein the data packet comprising header information and data and being is located in an array of virtual buffers that each map to one or more physical buffers in a system memory;

analyzing the virtual buffers and the physical buffers associated with the data packet; and

selecting one or more buffers of the array of buffers to coalesce according to an initial fragment size; and

selectively copying either the selected one or more selected ones of the virtual buffers or selected ones of the physical buffers into a coalesced physical buffer based on the analysis.

2. (Currently amended) The method of claim 1, further comprising assembling a coalesced array from the coalesced physical buffer and one or more respective non-selected virtual buffers or physical buffers of the array of buffers.

3. (Canceled).

4. (Canceled).

5. (Canceled).

6. (Canceled).

7. (Canceled).

8. (Currently amended) The method of claim 1, wherein selecting selectively copying selected ones of the one or more virtual or physical buffers comprises iteratively analyzing, in order, each virtual or physical buffer associated with the data packet of the array to select buffers of the array such that their composite size of the selected ones is less than ~~about the initial fragment~~ a predetermined size.

9. (Currently amended) The method of claim 1, wherein selecting selectively copying selected ones of the one or more virtual or physical buffers comprises performing the following beginning with a first buffer ~~of the array~~:

obtaining a size for a current virtual or physical buffer;

computing a composite size as a function of the current virtual or physical buffer size and a composite virtual or physical buffer length; and

on the composite virtual or physical buffer size being less than ~~the initial fragment~~ a predetermined size, selecting the current virtual or physical buffer and adding the current virtual or physical size to the composite virtual or physical buffer length.

10. (Currently amended) The method of claim 1, further comprising determining ~~the initial fragment~~ a predetermined size according to a desired overall system performance, and using the predetermined size in identifying the selected ones of the virtual or physical buffers.

11. (Currently amended) The method of claim 1, further comprising determining ~~the initial fragment~~ a predetermined size according to a desired network throughput, and using the predetermined size in identifying the selected ones of the virtual or physical buffers.

12. (Currently amended) The method of claim 1, further comprising determining the ~~initial fragment a predetermined size~~ according to a desired overall system performance, network throughput, and system resource utilization, and using the predetermined size in identifying the selected ones of the virtual or physical buffers.

13. (Currently amended) A method for partial coalescing transmit buffers comprising:

receiving an array of virtual buffers ~~containing header information and data for a data packet;~~

mapping buffers of the array of virtual buffers to an array of physical buffers, wherein one or more of the physical buffers are associated with each of the virtual buffers;

analyzing the array of virtual buffers and the array of physical buffers for individual buffer sizes;

on ~~one or more of the array of~~ virtual buffers having a size greater than ~~one or more the array of~~ associated physical buffers, selectively coalescing an initial number of buffers of the array of virtual buffers into a coalesced buffer; and

on ~~one or more of the array of~~ virtual buffers not having a size greater than ~~one or more the array of~~ associated physical buffers, selectively coalescing an initial number of buffers of the array of physical buffers into the coalesced buffer.

14. (Original) The method of claim 13, further comprising forming a coalesced array from the coalesced buffer and non-coalesced buffers of the array of physical buffers.

15. (Original) The method of claim 14, further comprising passing the coalesced array to a network device for transmission.

16. (Original) The method of claim 13, wherein the initial number of selected buffers to coalesce depends on an initial fragment size.

17. (Original) The method of claim 13, wherein the coalesced buffer has a physical memory size and a physical address.

18. (Original) The method of claim 13, wherein the array of virtual buffers is received from host software.

19-21. (Canceled).

22. (New) The method of claim 1, wherein analyzing the virtual buffers and the physical buffers comprises:

coalescing a determined number of virtual buffers into the single physical coalesced buffer if the total size of the virtual buffers is greater than the total size of the physical buffers; and

coalescing a determined number of physical buffers into the single physical coalesced buffer if the total size of the virtual buffers is less than the total size of the physical buffers.

23. (New) The method of claim 22, wherein the determined number of virtual buffers comprises a number of virtual buffers that have a total size associated therewith that is less than a predetermined size.

24. (New) The method of claim 22, wherein the determined number of physical buffers comprises a number of virtual buffers that have a total size associated therewith that is less than a predetermined size.